
FOLIO

Strategic Planning Groups Shape Trail For University to Negotiate

At Part IV of Spring Convocation (5 June), J. Peter Meekison, Vice-President (Academic), delivered the following Report to Convocation.

Eminent Chancellor, Chairman of the Board, Mr. President, Members of the University Community, Graduands, Ladies and Gentlemen:

Planning is important for every organization. Universities are no exception. Just as you who are graduating today are planning for your future, so too is the University planning for its future. Over the years, the University has developed a series of academic plans—particularly during the late 'sixties and early 'seventies when the University underwent a phenomenal

period of growth. Today, because of changing enrolment patterns and budgetary pressures, there is a need to embark on a new academic course. We are currently in the process of charting that course.

Two years ago the University of Alberta launched an ambitious and comprehensive planning effort. My Report to Convocation is on the status of this effort and its future development.

At the 1983 Fall Convocation, President Horowitz announced the creation of four planning groups within the University community. My predecessor, George Baldwin, said at the time:

There is strong conviction that we must as an institution take charge of our future and shape it according to a deliberate and conscious strategy derived from our best judgment of what it is we individually and collectively want to be and do.

Each planning group was chaired by a dean and each had a cross section of membership drawn from the faculty, students, and public members of the Board of Governors. In all, more than 60 individuals from the University community were involved.

The reports from the four planning groups are now virtually complete. I would like to share with you this afternoon some of the ideas and recommendations contained within them. In the months ahead, the University must make some critical decisions and choices based on these recommendations.

First though, I feel that it is important to give you some basic facts about the University to show why systematic planning is so necessary. Our enrolment this past fall reached its highest level ever. Growth was primarily in, but not confined to, undergraduate programs. There were ap-

proximately 21,260 undergraduates and 2,665 graduates registered on a full-time basis. For those of you who left your calculators at home, that totals 23,925. In addition, there were another 4,243 part-time students. Our students are registered in 17 Faculties, 88 departments and more than 2,000 different courses each term. If you add to the students the number of academic and non-academic staff, you find a total University population of approximately 36,000—or put another way, a city comparable in size to Medicine Hat.

Beginning in the fall of 1981, the year many of you in the graduating class today started your university careers, there was a rapid increase in enrolment. You experienced on a first-hand basis the large classes, crowded labs, and line-ups that resulted. You may even have had difficulty finding a place to park!

Because several Faculties at the University had previously established quotas, growth was primarily in the non-quota Faculties. The greatest pressure in terms of enrolment increases has been in Arts and Science, Agriculture and Forestry, and Physical Education, as opposed to Engineering and Business where enrolments have plateaued because of quota restrictions. The problems resulting from a rapidly expanding enrolment were a contributing factor in the creation of the planning groups.

Our estimate is that enrolment has peaked and should remain relatively constant over the next two or three years. Then it should start to decline, levelling off at around 20,000 students. There are many reasons for the decrease. The key one is that the principal source of students, individuals graduating from Alberta high schools, diminished. Even then, with 20,000 students, we will remain a very large

University.

The second factor which contributed to the need for additional planning was pressure on the University's budget. The University's operating budget is \$233 million; its capital budget is \$30 million; and its level of research funding is \$55 million. That is a great deal of money and its allocation within the University reflects the institution's priorities. Growth in the University's budget did not keep pace with the growth in the student body. To be sure, enrolment growth funds have been provided to the University, but these funds are for short-term needs and are not part of the base budget; therefore long-term commitments cannot be made against them. This is not intended to be, nor should it be considered, a criticism of government funding policies. Universities must also face the economic circumstances that the province finds itself in; but it should be recognized that, at a time when the provincial economy took a downward turn, enrolment at the University was on the increase. Compared with other areas where provincial funding is involved, the University has been treated fairly. Nevertheless, the increased budgetary pressures which the University faced coupled with significant growth in the number of students created additional impetus for a University plan.

Highlights

The four planning groups were created, met intensively for a year and a half, and submitted their reports. Let me review with you now their highlights and tell you what lies ahead. The most important question confronting the planning groups was: What kind of university do we want to

Inside

- TriBACH funding Artist-in-Residence Program
- Dean Morcos and the North African Mission
- *Research Inventory* for Faculty of Science
- Vice-President Kaplan on acquisition of research facilities and new ventures
- Revised procedures for selection of department chairmen

See You 11 July

Folio will publish biweekly during July and August. The next issue, therefore, will be dated 11 July. Regular deadlines on the preceding Thursday—9 a.m. for "Coming Events" and 3 p.m. for display and classified advertising—remain in effect.

Folio will revert to the weekly publishing schedule on 5 September. □

be? The short answer is: One that will achieve and maintain "excellence"—excellence in scholarship and research, excellence in teaching and learning, and excellence in service to society. This University must be in the forefront of the discovery and transmittal of knowledge whether in the humanities, social sciences, science, engineering, or the other professions. All Faculties must excel. The standards the University adopts should be at a level accepted and recognized by the international community. We can expect no less.

In its report, Planning Group I, which had the important task of looking at the over-all capabilities and capacities of the University, outlined a series of strategic statements or principles around which debate will focus in the months ahead. Time does not permit me to elaborate on all of these principles, but let me mention a few to give you some idea of their emphasis.

Under the heading of research, one finds the following statements:

1. The University of Alberta will attempt to provide the basic resources and working conditions to assist academics in their scholarship and research, and
2. The University of Alberta will identify groupings of scholars and researchers of internationally-recognized

excellence in a limited number of disciplines and interdisciplinary studies and will maintain and build these while recognizing the importance of scholarly activity in all areas of endeavor.

Under teaching, one finds the following statements:

1. Students will be required to strive for and attain high levels of achievement throughout their degree programs.
2. Graduates of the University of Alberta will possess an appropriate level of general education in addition to specialization.
3. The University of Alberta will provide lifelong and continuing higher level educational opportunities for interested adults.

While these statements seem at first to be deceptively simple, the implications of their acceptance by the University community is very complex because their acceptance will require changes in what we do and how we do it.

Following the debate on these strategic principles and the crystallization of a consensus, the next phase will be to develop ways to put them into effect. Matters such as implementation, timing, budgets, establishing priorities, staffing considerations, student mix, and the desirability of a common first-year or common core must all be considered.

Planning Group II has been examining the impact of computers on the University. There can be no doubt that the microchip has revolutionized our world—how we gather and process information, how we work, and how we live. Universities are even more susceptible to these trends than other institutions because universities are not only at the forefront of the technological revolution, they are among the first to be affected by it. Indeed, many of you who are graduating today will find yourselves not only caught up in the technological revolution, but on its leading edge.

Planning Group II's mandate was more narrowly focussed than that of Group I, but its task was no less important. Some of the questions they came to grips with included the following:

Are computers being applied effectively to the teaching, research and administrative processes of the University?
and
Are sufficient funds being applied to

computer-related programs and projects?

Without going into detail, Group II's report recommends that the University place greater emphasis on increasing computer skills of students and staff, and that automation of library operations be increased. It raises questions concerning the accessibility to students of computing facilities and the use of computers in student and faculty research. Think for a moment of the influence of the computer in your own studies. Think back ten or so years and try to remember the state of the art. It was not particularly advanced. Try to imagine where we will be in another ten years. To some, it is exciting and challenging; to others disturbing. We are in the midst of the technological revolution with its attending social consequences.

Planning Group III discussed the role of graduate studies and research at the University. To them, expression of the graduate program is a major objective. A significant increase in the number of graduate students and programs will change the character of the University by placing a much greater emphasis on research.

When expansion of graduate programs is first discussed, people understandably think that it will take place at the expense of undergraduate programs. I have already referred to the fact that total university enrolment will decline. As the decline in undergraduate enrolment takes place, that is the time to shift the emphasis to graduate studies. In quota Faculties and in Faculties such as Agriculture and Forestry, Dentistry, Pharmacy, Library Science, Rehabilitation Medicine, Home Economics and Faculté Saint-Jean, where we offer the only programs in the province, it is difficult to foresee any significant changes. Essentially, enrolment will decline in Arts, Science, and Education where other alternatives such as the college system exist. Thus, the greater emphasis on graduate education is not intended to, nor is it expected to, create obstacles for individuals wishing to pursue post-secondary education. This change in focus means that the University can concentrate on things which it is best equipped to do.

The last planning group—Planning Group IV—had as its mission the responsibility of identifying new program initiatives and priorities. To quote from the committee report:

In setting priorities for the University of Alberta, there is a realization that there are certain unique features and obligations associated with the University due to its location, achievements, and history. The University is a part of the society in which it exists and reflects to a considerable extent its environment. It also provides a service to society although it does not do so in accepting direction from society, but rather, through its spirit of independent inquiry and its various functions. The University makes a number of direct and indirect contributions to the people of Alberta and Canada and these contributions are intimately tied to the culture, economy, and knowledge of Canada.

The committee identified five priorities and ranked them in order of importance.

1. Graduate Study and Research

The University of Alberta is the major research centre in Alberta and has a responsibility to develop a major graduate program in a broad range of areas as part of its function to advance knowledge through research.

2. Liberal Education

The University of Alberta, as the leading provincial institution in the humanities, social sciences and sciences, must maintain its leadership in scholarly research and teaching.

A liberal education is an important contribution to the quality of our civilization and to the quality of life of individuals. The exposure of students to the many facets of a liberal education is a goal of the University that will enable them to adapt better to an age of technology and its social problems.

3. Regional Needs

The University of Alberta has a particular responsibility to the northern communities due to its location and its research base. Priority would be given to program initiatives that help meet the needs of these groups.

Of particular relevance to Alberta, Western Canada, and the North is our dependence on agriculture and energy, and the transportation facilities needed to move our products to market. Each of these requires a high degree of research and technology to make them economically viable. Research on northern problems is an

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area of responsibility that should continue to be emphasized by the University.

4. Professional Programs

The University has a long-standing commitment to education for the professions and this is recognized as a priority area with sufficient graduates of professional programs to meet the Province's requirements.

5. International Initiatives

The University of Alberta, as a leading Canadian university, has a responsibility to be involved in international programs, particularly those that flow from its current activities and from the needs of the community. This is a function that other universities are not as well equipped to fulfill.

International initiatives are ranked last not because they are less important but because they should be addressed after the other priorities have been met or are being met. As a focal point for this initiative an Institute for International Affairs should be established at the University to link the academic programs with the business and technological activity that will take place.

As a framework for establishing these priorities the committee emphasized the following:

1. Accessibility

University education should be accessible to all those who have the ability and the interest.

2. Innovative Methods of Instruction

The University of Alberta must recognize the need for newer and more innovative methods of instruction as a mechanism for improving learning, and states this as a priority for program development.

3. External Interests

The University of Alberta should give priority to initiatives where there is evidence of strong support for a program by special interest groups in the community, provided the aims of the program are in keeping with the aims of the University as a whole.

4. Use of Existing Physical Facilities

The University of Alberta has a large investment in physical facilities. Programs that make better use of the existing facilities or use the facilities to reduce their funding needs should be given preference.

Wanted: Input and Commentary

In the next few weeks my task will be to take these four reports which I've discussed and knit them into one—a University white paper. In September, we intend to distribute the final document widely and hope to receive input and commentary from as many sources as possible. For example, in addition to academic units, the Senate, Board, Alumni, government departments such as Advanced Education, other universities and colleges, and any interested members of the public should have an opportunity to comment on the report and to make suggestions. In the late fall, these dif-

ferent views will be incorporated into a second document or series of policy statements which will be debated within the University. A year from now, I hope to be in a position to report to you on the results of these deliberations and the course the University has set for itself. The next few months promise to be challenging and exciting as the University debates some of the most important questions it has had to deal with in recent years. The results or choices should be such that the University is launched on a new path to put it at the forefront of Canadian institutions.

As the Canadian population becomes better educated and more mature, there will be increased demand

for more education, different delivery modes, maintenance of professional qualifications, and recognition that learning is a lifelong activity. The University must respond to this reality. It must do more than simply respond. It must be at the forefront of ideas and their dissemination. A few years ago nobody would have thought about education via satellite or computer-assisted instruction. Today they are the reality. What will be tomorrow's reality and what will be its meaning to you and the next generation of students? The new University plan will assist in answering these questions.□

TriBACH to Fund Artist-in-Residence Program

The TriBACH Festival board of directors have announced the creation of a \$150,000 endowment trust fund to establish a TriBACH Artist-in-Residence Program.

Describing the scope of the program, Terry White, Vice-Chairman (Communications) of the Festival Board, said it will be limited to the field of music, and within that will be limited to performing artists.

Interest on the principal, matched by the Government of Alberta through its matching grant program, will be used to bring in each year an artist of international stature for a period of four to six weeks. Gifted students in the musical community throughout Alberta will have the opportunity to attend master classes with the artist. The Edmonton Symphony Orchestra will also have the opportunity of working with the artist, who will give a major concert while in Alberta.

It is hoped that the program will start in 1986. The schedules of world-class performers are booked years in advance, but this kind of program, enabling a stay of two to six weeks in one place, is enthusiastically endorsed by performing artists, said Terry White. "In looking for the Artist-in-Residence, we will go for quality rather than quantity. Two weeks of Pavarotti would be chosen over six weeks of someone lesser. We are going for the best."

The University of Alberta, through

the Department of Music, will coordinate with music departments of other post-secondary institutions of the province, to give the program maximum impact throughout Alberta. Music students from the community colleges, Alberta College and the four universities will all benefit from the program, which realizes the Festival's ambition of leaving behind a musical legacy.

A further legacy is the Board's gift

to future Albertans of \$2,085, to mature in the year 2085, to provide a significant amount (probably by then in seven figures) to help celebrate the BACH400 anniversary.

Footnote: In a unique move, all papers connected with the inception and organization of TriBACH have been lodged in the Provincial Archives, for the edification of future organizers of festivals of any kind.□

Dean of Pharmacy Appointed President of AFPC

John Bachynsky is the new president of the Association of Faculties of Pharmacy of Canada (AFPC).

Appointed at the end of May for a one-year term, Dr. Bachynsky said that during his time in office he will be "trying to get off the ground professional education at the clinical graduate level." Accreditation will also be one of his concerns. "We don't have as formal an accreditation process as I would like, and we will be working on setting up accreditation standards and process."

Created exactly 40 years ago, the AFPC's objectives are to maintain high and uniform standards in pharmacy education across Canada; to maintain some level of uniformity between Faculties of Pharmacy in terms

of programs; and to make representation of behalf of the Faculties to other organizations, particularly government.□

Foot-In-Our-Mouth Department

An item in last week's *Folio* suggested that the Physics Building (now the Avadh Bhatia Physics Laboratory) is "devoid of...the apparatus of a laboratory." This is not so. There are, in fact, many laboratories in the building (with much apparatus) where physicists are to be found, diligently pursuing their scientific researches.

Folio regrets having appeared to suggest otherwise.□

Dean Morcos Concludes Term With Far-Reaching North African Mission

At midnight on 30 June, Gamila Morcos will be the Past Dean of Faculté Saint-Jean. It's a safe wager that she won't reflect on her five years in office before that time because she has a number of projects bordering on completion and she wants the in basket on the Dean's desk to be empty when her successor, Jean-Antoine Bour, arrives.

One undertaking that is progressing nicely is the North African Mission. Under the sponsorship of the Hon. Horst Schmid, Minister for International Trade, Dean Morcos journeyed to Tunisia, Algeria and Morocco and met with key people in higher education and teacher-training institutions, technical-assistance programs, and in energy and agriculture organizations.

Her hosts were made aware of the presence of a francophone institution at the University of Alberta. Naturally, a single trip does not allow one to accomplish everything but Dean Morcos found this first step fruitful in terms of conveying the basics of some of our University's programs, especially those in petroleum engineering, agriculture and computing science and in observing and tying in the educational needs of the North African people.

Actually, things moved slowly at first and Dean Morcos was beginning to question the expenditure of time and money. One can't, however, compare reactions and facial expressions of Canadians and North Africans. The latter's emotions are masked and a guest is almost certain to encounter a don't-call-us, we'll-call-you situation.

The upshot of the mission is that educational administrators there want a group of undergraduate students to study here, ideally for two years at Faculté Saint-Jean where they can improve their shaky knowledge of English before completing their program in, for example, the Faculty of Engineering or Agriculture.

Someone has missed the boat, Dean Morcos discovered in Tunisia. For the past two years, Mahmoud Triki, Director of the USA Scientific Mission of Tunisia, has been trying to identify

students with sufficient mastery of English to train in Alberta or B.C. Until speaking with the Dean, he had been unaware of Faculté Saint-Jean's existence.

One hang-up in the proposal to have North African students come here is that they do not want to pay the additional student visa fee. Ontario, Dean Morcos points out, waives the fee to help attract international students to its campuses. She would like to follow suit and Witold Weynerowski, Canadian Ambassador to Tunisia, hopes the Government of Alberta will consider negotiating an agreement to regard Tunisian students as "residents" as far as tuition fees are concerned.

In Dean Morcos's report, the first entry under "Recommendations to the Government of Alberta" reads: "Following the precedent created by Quebec and Ontario: that arrangements be made to consider students from North African countries as 'residents' for the purpose of tuition fees only."

The second recommendation is that, since the common language in the countries visited is French, Faculté Saint-Jean's Centre for Continuing Education be given a base budget to "provide intensive instruction in French as used in trade and commerce, and particularly in agriculture and the petrochemical industry."

In any event, the undergraduate students would not start classes until September 1986 and the number of students would not exceed 15. Dean Morcos's task is to secure the appropriate funding and advise the North Africans of the deadlines for admission.

A recommendation to the Dean of Faculté Saint-Jean is that that individual seek the collaboration of French-speaking faculty members at the University of Alberta for disciplines or expertise not available at the Faculté that are requested by North African countries.

This September, the Director of Ecole Normale Supérieure de l'Enseignement technique de Tunis, Mohamed Annabi, will visit the University to look at computer-assisted instruction and the possible transfer of

such programs.

The intent of the mission, then, is to create cooperative links between Faculté Saint-Jean and North African countries and to enhance the rapport that exists between these countries and the Province of Alberta. "Realization of these objectives," Dean Morcos says, "would give the large francophone populations in those countries access to education, and encourage their participation in trade in Alberta."

In the course of her travels (5 to 18 March), Dean Morcos was impressed by the strength of the French influence and by the vocational training programs. No expense has been spared to provide work space and machines for students. Before a student graduates he/she has to present an original project that has the potential of helping to improve the lot of the people.

The Dean was also taken with a sign board which resembles a map of the Paris Metro. Designed by faculty members at one of the North African universities she visited, the board seemingly has everything a prospective student needs to know about a particular course of study. Press the appropriate button(s) and the information pops up almost instantaneously. A similar board placed in the main office of each Faculty at our University might prove very useful, Dean Morcos suggests. Certainly, it would eliminate the need to thumb through the *Calendar* in search of but a few lines of information.

Deanship

Gamila Morcos did not have any preconceived ideas about the administration of the Faculté Saint-Jean when she took office in 1980. Rather, she observed and read a lot for the first six months and then made plans according to the personnel and other resources on hand. During her term she supervised the design of a certificate for students who passed the bilingualism exam and selected lilac as the Faculté's official color. Two prizes for top students, one sponsored by the

Consul-General of France, the other a gold medal which resulted from a donation by Le Fonds Saint-Jean, were instituted during her term of office and the Tableau d'Honneur was placed on one wall of the students' common room.

Externally, the Faculté's profile was enhanced significantly by Dean Morcos. Upon discovering that the Faculté, founded in 1908 as Collège Saint-Jean, had a solid reputation in local education circles but was virtually unknown elsewhere, Dean Morcos organized the production of a comprehensive album which was launched during the 75th anniversary celebrations in 1983. A grant from Alberta Culture allowed the staff to publish an informative and handsome document, one that prompted hundreds of favorable letters from recipients such as various francophone institutions, university presidents and university librarians.

At the end of her first year at the helm, Dean Morcos published a comprehensive report that included alumni news. This is now done annually. The establishment of the Advisory Council a year ago has proved to be an astute move, especially in terms of getting a different perspective on academic issues because of the number of members from off campus. The Council, Dean Morcos says, is "our way of combining academics, publicity and marketing at the same time."

In using the word "ferocious" when talking about standards, Dean Morcos hints that she might not have received too many votes had a popularity contest been held. Be that as it may, many faculty members have upgraded their qualifications and research work, publications and grants are "going up from year to year."

Prizes for teaching and research are awarded annually (Dollard Desmarais and Albert La France for excellence in research and France Levasseur-Ouimet for excellence in teaching were honored on 24 May) and developments like the North African Mission have the Dean leaving in a good frame of mind. She will write the annual report for 1984-85 and then take administrative leave for a year

before taking up the teaching of French literature at the Faculté in September 1986 (she holds a doctorate in that field from the Sorbonne). During her leave, Dr. Morcos will take a course at the Paris clinic of Alfred Tomatis, the renowned ear,

nose and throat specialist who is doing pioneer work in the treatment of hearing and learning disorders. She will then explore the possibility of having a Tomatis Centre in Edmonton, perhaps at Faculté Saint-Jean. □

Hotel and Restaurant Management Program Endorsed

General Faculties Council has endorsed, subject as ever to the availability of appropriate funding, a Bachelor of Science program in hotel and restaurant management (HRM). The program, when established, will be offered in the Faculty of Home Economics.

The objective of the program is to fill a need long identified by the Faculty of Home Economics and the hospitality industry for high calibre, well-qualified management personnel. Graduates of the program are expected to attain positions of leadership, according to information provided to GFC members, "in hotels, resorts, restaurants, catering, motels, fast-food operations and other related areas."

In a response prepared for the Academic Development Committee after an earlier review of the suggested program, the Faculty of Home Economics stated that it has prepared "a rigorous academic program with a sound foundation in the basic and social sciences and the theory and principles of management science. The unique applied HRM subjects are added to this base to form the program. The program, therefore, gives the student not only information for management but also provides an understanding of the scientific and sociological areas which graduates will work in." Courses projected for the program include, in the first year, offerings in English Literature (ENGL 215), Organic Chemistry (CHEM 250), Micro-Economics (ECON 202), and Psychology (PSYCH 260 and 261). The second year of the program will see students engaged in Accounting (ACCTG 202), Basic Foods (FD NU 320), the Socio-Cultural Aspects of Food (FD NU 323), Probability & Statistics for Business (MGTSB 307 and 307), and 400 hours of summer work experience as well as other man-

datory and optional courses. The third and fourth years of the program will continue in the same vein with the addition of hotel and restaurant management courses relating to such topics as front and property management and communications and marketing strategies.

That the program is a timely arrival on the academic scene in Western Canada is clear from recent political statements in this Province and elsewhere concerning the state of the tourism industry. The Dean of Business, Roger Smith, supports the establishment of the program, saying that it will be "important for the future development of Alberta." □

Faculty of Science Produces Research Inventory

G.A. (Gerry) Moss, Associate Dean, External Relations, Faculty of Science, and his associates have left no stone unturned in compiling the *Faculty of Science Research Inventory*. The 258-page publication provides a brief summary of the work of more than 200 academic staff who contributed to it. Preceding the individual entries (which appear alphabetically by department), an overview of each department contains facts about some of the facilities used in teaching and research in the Faculty.

After the individual entries, one finds a list of abbreviations and a keyword index which lists the page(s) on which the keyword appears.

"It is our hope that the *Inventory* will serve as a useful guide for those requiring technical information about the many and varied research endeavors under way in the Faculty of Science," Dr. Moss states in the preface.

PLATO Learning Centre Summer Camps Offer Variety of Courses For All Ages

Computer-taught remedial courses for elementary, junior high and high school students are being offered throughout the summer by the PLATO Learning Centre.

In addition, about 80 items are offered on the regular menu which covers subjects ranging from math and language arts through music to running a restaurant or flying an airplane.

On the special menu for students who need to catch up—or want to get ahead—are mathematics, grammar, reading, writing, social and science.

"Students find that learning these subjects with PLATO is fun," says Pop Day, supervisor of the Learning Centre, Faculty of Extension. "The computer gives encouragement when the answer is right, and has infinite patience when someone is having difficulty grasping a concept."

Remedial courses are grouped for grades 3 to 8, and then for students in higher grades. But students of any age can take these courses. PLATO will administer a placement test, then prescribe the appropriate tutorials.

"You cannot be too old; you can only be too young," says Mrs. Day. "We have had a student in her twenties who had no basic skills in math at all. She wanted to run a centre for the handicapped but she couldn't set it up because she couldn't do any budgeting. She couldn't add or subtract or carry and she couldn't make change from a dollar. She came in and took only math courses and got the skills she needed."

Students can choose any or all of the items and do them for as long as they want—the course fee includes 33 hours of instruction, but additional time is available.

"There was this little guy in grade 4," says Mrs. Day, "who did mental arithmetic all the time. He would politely switch to something else if I suggested a change, but as soon as I walked away he was back on mental arithmetic. He had just decided he was going to improve his mental arithmetic skills. And he did. In December, he sent me his report card showing he got 80 percent in arithmetic at Christmas, compared to 30 percent in the summer."

All the courses are available whenever a student comes in to the Centre, so that students can fit PLATO instruction around their other summer activities.

All programs start on 2 July and run right through the summer. There are still a few places in the remedial programs and in the regular summer camps.

For more information, call Pop Day, 432-2444. □

Moss says. His follow-up statement is that if a new edition had to be brought out tomorrow, the *Inventory* could be updated and printed in less than a week.

He emphasizes that the publication is for the benefit of the individuals whose research and teaching are profiled in it. The intent is that anyone wanting further information about a particular research activity move to obtain it by calling the researcher directly. □

R&D: Much has Been Done, Much Remains to be Done

J. Gordin Kaplan, Vice-President (Research), gave this Report to Convocation on 6 June.

Mr. Chancellor, honored guests, members of the graduating class, ladies and gentlemen:

Today I shall briefly describe certain of the exciting research developments that have occurred at our University since I last reported to Convocation on 6 June 1984. I shall deal especially with the acquisition of new facilities and with some of our new ventures in transferring to industry discoveries made by our scientists and engineers. I shall conclude, as I usually do, with some words of advice directed across the river to our good friends in the Government of Alberta.

A. New developments in engineering and science

1. Microelectronics

The Alberta Microelectronic Centre was established by the University of Alberta, with the help of a \$1 million grant from the federal government, in 1981. It is governed by a Board of Directors dominated by the private sector but with representatives of provincial and federal government agencies and of the Universities of Alberta and Calgary. Last year, a proposal was submitted to the Department of Economic Development suggesting the creation of silicon microchip design and fabrication facilities. The Government has acted favorably on this proposal and has allocated \$13 million for this purpose. The Alberta Microelectronic Centre will now expand into Calgary where the design facility will be located; the University of Calgary will have equal representation with the University of Alberta on the Board of the Centre. The two universities cooperated closely in the submission to government; both worked in close collaboration with the Alberta Research Council, which accepted my invitation to coordinate the project. Soon, we shall have world-class microelectronic facilities at the two universities and this will be of great benefit to the burgeoning Alberta electronic industry as well as to engineers, scientists and students at the two universities. I should not forget to mention

that we had earlier received a grant of \$500,000 from the federal government for a gate-array laboratory that permits the finishing of the final layer of semi-conductor chips. All of these facilities will be available for research and teaching and for Albertan and Canadian industry. We still have a way to go before we catch up with the Ontario Centre for Microelectronics, established in Ottawa by that province a few years ago. However, we're on the way!

2. Telecommunications

You will have read of the opening on 6 May 1985 of the Alberta Telecommunication Research Centre. This Centre, to be located at the Bell Northern Research Edmonton facility, is to promote research in fibre optics, optoelectronics, and related areas. It will be jointly operated by BNR and the University of Alberta. This very promising research development was made possible thanks to support (\$3.6 million) from the Province of Alberta through its Department of Economic Development. This represents the first time that the University of Alberta has participated with a Canadian industry in jointly founding and operating a research institute.

3. Acoustical and Noise Unit

The University was itself able to finance the acquisition of a large and well-equipped facility in South Edmonton, previously owned by a private consulting firm; henceforth it will be operated by our Department of Mechanical Engineering. This facility, permitting advanced research in transmission of sound through building materials, will also be available to the construction industry in Western Canada; the only other comparable facility is in the laboratories of the National Research Council in Ottawa.

4. Agricultural Research

Some initiatives in our Faculty of Agriculture are exciting and mark our determination to conduct research at the frontiers of the agricultural sciences; this field is of critical importance to the future of Alberta and Canada.

A most significant example of cooperation between the Province and the University is the creation of the Alberta Agricultural Research Institute;

this is a joint enterprise of the University and Alberta Agriculture. Long- and short-term research, both basic and applied, will be conducted in a number of important subjects relevant to the agriculture of today and of the next decade.

In this connection, I must mention another example of collaboration with a leading Canadian company. Canadian Pacific, together with McGill University and the Universities of Manitoba, Saskatchewan and Alberta, has created a consortium for the conduct of research related to problems of agriculture of Western Canada. Each of these universities is to receive \$250,000 in five annual \$50,000 slices. We are delighted that Alberta Agriculture has decided to match the CP grant since we have thus been able to create a Canadian Pacific-Alberta Agriculture Professorship in Plant Biotechnology. This Chair is now being advertised and should be filled during the next academic year. While we have some catching up to do in the rapidly expanding and vitally important field of plant molecular genetics, and in the new disciplines resulting from the application of molecular biology to agriculture, natural resource extraction, pharmacy and medicine, we are on our way to achieving excellence in some of these areas. One of the research groups in the Alberta Agriculture Research Institute will be in plant biotechnology. It is an excellent omen that certain departments in the Faculty of Science are also likely to appoint specialists in plant molecular biology, upon which plant biotechnology is based. This will, I am confident, lead to increased collaboration between scientists in our Faculties of Agriculture and Science, and, ultimately, to our becoming a leading centre of research in biotechnology applied to agriculture, and, ultimately, to medicine and industry.

5. Medical Research

The Minister of Advanced Education, Mr. Johnston, has agreed to match the income from a gift to the University of \$750,000 made by the Alberta Heart Foundation. This has permitted the University and its Faculty of Medicine to establish an endowed chair in cardiovascular research. Even more exciting is the decision of the Alberta

Heritage Foundation for Medical Research to provide \$30 million to this University (and the same amount to our sister institution in Calgary) for the construction of a new medical research building as well as to fund the creation of a number of new research groups to be housed in the new building. This will add at least an equal number of scientists of professorial rank to the 33 already on our staff thanks to the Foundation. Some of these scientists may have their primary academic appointment in other health-related Faculties, such as Pharmacy and Science; most will, of course, be in Medicine. It is no exaggeration to say that the existence of the Alberta Heritage Foundation for Medical Research will transform the University of Alberta into a leading Canadian institution of clinical and basic medical research.

6. Relations with Industry

Two novel initiatives have permitted us to expand our activities in the transfer of University research to industry. The Department of Economic Development of the Government of Alberta agreed to second an officer of their high technology section to work in September 1984 in our Office of Research Technology; he assisted the Director of this Office in efforts to aid our scientists, scholars and engineers to transfer their ideas and discoveries to the marketplace. This highly successful experiment lasted for six months and has for the moment been discontinued. The Province of Ontario has just initiated a similar scheme: the Government is to provide \$100,000 per year to a number of Ontario universities to permit them to collaborate actively with industry. I would like to see the Government of Alberta renew this mutually beneficial arrangement with our University and, indeed, extend it to the other Alberta universities. Better still, the Province ought to follow the lead of Ontario and give its universities \$100,000 a year for three years and then assess the value of the program before renewing it.

We have recently been awarded a contract from the Program for Industry/Laboratory Projects (PILP) of the National Research Council that will permit our Office of Research

Services to hire a full-time industrial relations officer. His or her responsibilities will involve the establishment of close liaison with Albertan industry and agriculture in order that the imagination, creativity and specialised knowledge and equipment within our precincts may be made available where possible to create employment and to generate new industries in Alberta and Canada. It is noteworthy that this is the first time that a PILP contract has been awarded to a university for such a purpose. The University of Alberta is rapidly becoming a national leader in the application of basic and applied research for the economic benefit of province and country.

7. The Alberta Laser Institute

We have just yesterday learned the exciting news that the Provincial Cabinet has approved our proposal for creation of the Alberta Laser Institute which will specialize in laser research and development related to robotics, manufacturing and microchip processing. This will be a major factor in helping Edmonton become an important centre in this rapidly growing field. The Province has allocated \$5 million to be spent over three years for this purpose; \$1.5 million will be contributed by the federal government. The Institute is owned and housed by the University of Alberta but will be an arm's length entity, governed by a Board of Directors with strong industrial representation. It is noteworthy that there are now three laser companies in the Edmonton area and that the University is involved in one way or another with all of them. My congratulations go to the Department of Electrical Engineering for their imagination and enterprise!

B. Some Cautionary Notes

1. Basic Research

The fundamental business of the university is the deepening of our knowledge of humanity and the universe. The application of new knowledge to economic development depends squarely on the basic research that generates new knowledge. I am reluctant to repeat such a truism; I do so because, obvious or not, this lesson has yet to be learned by some of our friends in industry and government.

Good applied research and development stand squarely on a foundation of good fundamental research.

2. Research in the Human and Social Sciences

A disturbing fact is that research is not advancing uniformly on all important fronts. One area that has suffered from financial neglect by both levels of government is that of the human and social sciences. Of the three main federal granting agencies, the Social Sciences and Humanities Research Council, with a budget about one-third that of the Medical Research Council and one-sixth that of the Natural Sciences and Engineering Research Council, is so scandalously underfunded by the Government of Canada as to be simply unable to cope with the research needs of the community it is supposed to serve. The whole question of the needs of scholars in the humanities and social sciences is the subject of a national conference sponsored by the University of Alberta, to be held in Edmonton, 9 to 11 October 1985; this conference has been organized by a committee chaired by the Associate Vice-President (Research). It is noteworthy that scientists and engineers have participated in the planning of this event and will take an active part in the conference itself. The object of the Conference is to define what an adequate level of funding of research in the humanities and social sciences is and to suggest steps that might persuade the federal government to provide such funding to the SSHRC.

3. Conflicts of Interest

Will the ever increasing degree of involvement and collaboration with industry involve hazards and pose problems for the University? The answer to that question is easy: yes. However, a university community contains some rather clever people and they should be able to devise means that will enable us to live with these risks and to avoid at least the worst of the pitfalls. A draft policy on the University's relationship with industry in matters of research and on situations involving possible conflict of interest has been prepared. This will be widely circulated within the next few weeks and should be ready for adoption before the next snows arrive. Once adopted, this policy should enable us to navigate in these waters with some degree of confidence.

4. Does Canada do enough research and development?

Canada—and this includes industry as well as all levels of government—spends 1.1 percent of its gross national product on research and development. This is the lowest percentage of any of the developed countries of the world with the exception of Italy, which is marginally lower. In the last fiscal year, Canada spent about \$5.5 billion on all forms of research and development. One single American multi-national corporation, IBM of Armonk, N.Y., spent almost as much on its research and development for 1984: \$4 billion, that is, some 27 percent less than the national effort of Canada. We should do all in our power to persuade the Government of Canada to adhere to its election promise to raise our expenditures on research and development to 2.5 percent of GNP. Our economic survival and our viability as an independent and free nation depend on our ability to compete in international markets; our industries and even our agriculture depend on research and development to make our products competitive. Let us adopt a fairly modest goal: let us see if by 1988 all Canadian industries and governments can together spend twice as much on research and development as does IBM!

5. Impact of Science and Technology

I am one of those who gets occasional twinges of conscience about participating as a scientist and as an administrator in the exhilarating and accelerating advances in science and technology. These unpleasant pangs arise from the evident fact that we as a society and as a university don't accord much time or thought to the effect that application of new techniques and concepts will have on how we live. I would like to see the University of Alberta establish a program of studies in science and technology whose purpose would be to start us thinking systematically about these issues. It would offer graduate and undergraduate courses and encourage research on the social and political impact of science and technology, in the philosophy, history and sociology of science and engineering and in the field of science policy. Such a program could grow into an interdisciplinary institute, involving the Faculties of Arts, Science and Engineering. This absolutely vital area is virtually unrepresented in our Uni-

versity at this time. I am happy that there is considerable interest in this idea and I hope to be able to report significant progress during the coming year.

C. Role of the Provincial Government

Last year in my convocation report, I discussed the provincial White Paper on Proposals for an Industrial and Science Strategy for Alberta 1985-1990. In the intervening year, the Minister of Economic Development, the Hon. Hugh Planche, took the novel and imaginative step of leading delegations of industrialists and academics—including President Horowitz and President Wagner of the University of Calgary—to some of the most successful models of regional industrial development in new technologies. These included Silicon Valley near Stanford University, the Research Triangle Park in North Carolina (founded by the State in cooperation with Duke University, the University of North Carolina and North Carolina State University) and Austin, the seat of the University of Texas. Mr. Planche has recently given several remarkable addresses in which he has stressed the importance of university research to the economic future of Alberta. Next month, the Government is to bring forth a discussion paper as a basis for establishing policy in the application of science and technology to the economic development of Alberta. It is certain that this discussion paper will have much that is of interest to the University of Alberta. One idea that has been much discussed is the creation of endowed chairs in subject areas in which the Province should have greater strength, such as computing science, plant molecular genetics, biotechnology, sociology and economics of technological change, micro-electronics, hydrocarbon upgrading, industrial and Northern engineering and so on. The Government is well aware of the impact that endowment of such chairs at the University of Texas has had in attracting industry to that State. This University would certainly welcome the Government's initiative in this respect. However, the Government would do well to consult the Universities with respect to the designation of the fields in which it proposes to create such chairs.

An even more imaginative and powerful proposal was put forward to the

Government by all four Alberta universities over two years ago. We urged the Government to create two new research foundations that would be analogous to the Alberta Heritage Foundation for Medical Research. One of the proposed new foundations would support research in the natural sciences and engineering and the other in the social and human sciences. Of all the things that the Province could do to encourage its universities to become world-class research centres, the creation of these foundations would certainly be the best way to achieve this goal, which in any case the University of Alberta will strive to attain by all the means at its disposal.

Mr. Chancellor, I last reported to convocation exactly one year ago on 6 June 1984; this date was easily remembered because it was the fortieth anniversary of D-day, when the Allied Armies began the invasion of Europe. A few weeks ago, on 8 May, we celebrated the fortieth anniversary of the end of the European war and the final

collapse of the infamous Nazi regime. In early August, we shall pause to recall that, forty years earlier, the atomic bomb was first used in warfare, devastating the cities of Hiroshima and Nagasaki and killing and maiming many hundreds of thousands of people and indeed inflicting genetic disease on generations yet unborn. To today's happy graduates may I say that, of all the good things that I wish for you and your families, a world at peace is the first! If war is too important to be left to the generals, peace is certainly too important to be left to the politicians, even if the Canadian politician most directly concerned is a graduate and a recent doctor of this University! Peace should be a dominant concern of each of us and it is only by showing our deep concern that we are likely to achieve and maintain a peaceful world. My warmest congratulations and good wishes to the graduates and their families! May you live long and happily in a world at peace! □

Margaret Clarke Appointed Acting Director of Fund Development

L.C. Leitch, Vice-President (Finance and Administration), is pleased to announce the appointment of Margaret Clarke as Acting Director of Fund Development, effective 15 June 1985. Mrs. Clarke will replace Allan Holender, who has resigned from the University.

Mrs. Clarke joined the University early in 1984 as Associate Director, Alumni Giving, in the Fund Development Office. She has extensive

fund-raising experience, both in professional and volunteer capacities.

It is expected that a new Director of Fund Development will be appointed in the near future, in keeping with the administration's commitment to the enlargement of the University's resource base through donations, deferred giving, special fund-raising campaigns, and other similar activities. □

Completing the Roster of Retirees

The 13 June issue of *Folio* contained brief biographies of 92 members of staff who have retired or are about to retire. Trouble is, there should have been 93 biographies. Our apologies to Denys Noden who should have appeared between Clement Nivon and Clara Osadchy.

Mr. Noden's biographical sketch follows: Born and educated in England, Mr. Noden earned the Distinguished Flying Cross during his career as a World

War II pilot. Following the war, he studied modern languages at Cambridge University, and earned his BLS from McGill University in 1952. Mr. Noden joined the University Library staff as a cataloguer that same year, and was later appointed Law Librarian, Chief Cataloguer, and Assistant Librarian for Technical Services. He held the latter position until his retirement. May you continue to "fly high" during retirement, Mr. Noden. □

Procedures for Selection of Department Chairmen

At its last meeting of the 1984-85 academic year, 14 June, General Faculties Council voted to adopt revised procedures governing the selection of Department Chairmen. The rationale for change is twofold, according to Vice-President (Academic) Peter Meekison: "the existence of a panel (see below {v}, *Ed.*) would permit more rapid selection of a faculty member than does the existing election requirement; the panel would avoid the election of individuals with interests very close to that of the Department concerned, and permit a more balanced representation of the interests of the faculty as a whole."

The procedures are here published in full. Numbers refer to sections in the *GFC Policy Manual* and text in italics indicates revisions.

103.2.1(C) Department Chairmen in General

See 103.2.1(D)(vi) for Small Departments.

The Selection Committee will consist of the following voting members:

- (i) Dean of the Faculty concerned, or designee, Chairman.
- (ii) Dean of the Faculty of Graduate Studies and Research, or designee.
- (iii) Vice-President (Academic), or designee.
- (iv) Three (3) faculty members from the Department concerned, elected by the faculty members of the Department.

No faculty member of the Department in question should be excluded from voting in this election. In practice among the departmental electorate there will be both declared and undeclared candidates for the Chairman's position at the time of election. Declared candidates may not be elected as departmental representatives; however, these faculty members should be included in the electorate. The actual election could be conducted by one of the following methods:

- (a) *The Dean of the Faculty or designee chairs a special departmental meeting.*
 - (b) *The Dean arranges for a secret ballot.*
 - (c) *The Dean approves election procedures proposed by the Department.*
- The Council of each Faculty should decide whether faculty members on leave may participate in the election of departmental representatives.*
- (v) *One faculty member, normally not a member of the Faculty of which the Department concerned is part, selected from a panel which will consist of fifteen (15) tenured staff members who shall be elected by GFC. Membership on the panel shall be for three years staggered. (The first such panel under this clause shall consist of five members with a one-year term, five members with a two-year term, and five members with a three-year term.)*

The Chairman of a Selection Committee shall notify the Office of the Vice-President (Academic) when a Selection Committee is being formed and the Office of the Vice-President (Academic) shall then notify the Chairman of the Selection Committee which member of the panel will be serving on the Selection Committee. The Office of the Vice-President (Academic) will designate the member of the panel for a particular Selection Committee after consultation with the Chairman of the GFC Nominating Committee.

Determination of the staff member to serve on a particular Selection Committee shall be by rotation with the proviso that a member who has a conflict of interest may decline to serve on a particular committee.

If a Selection Committee has not completed its activities when the term of a GFC-elected representative on the panel finishes, he or she shall continue to be the GFC representative on that Committee even though he or she is no longer a member of the panel.

(vi) *The Council of each Faculty may decide whether students should be added to the membership of the Selection Committee. If a Council decides to include students, then one (1) graduate and one (1) undergraduate student are to be selected by a method established by that Council.*

(vii) *After one year's experience (June 1986), the Chairman of the GFC Nominating Committee and the Vice-President (Academic) will recommend to GFC whether the number of panel members should be increased. □*

WISEST at it Again

On Monday, 8 July, 20 grade eleven students will arrive on campus to participate in the second Summer Research Program offered by WISEST, the Task Force on Women in Scholarship, Engineering, Science and Technology. The purpose of the six-week

program is to encourage high school students to enter careers in non-traditional science-related fields. Girls will work in the Science and Engineering Faculties and boys will work in Nursing and Home Economics. □



By special invitation, members of the President's Club toured the Devonian Botanic Garden on 24 June, under the guidance of director Pat Seymour and other knowledgeable staff members. Umbrellas were carried by a cautious few, but the rain held off until the afternoon was over. Millie Gilbertson, past president of the Botanic Garden Club, used the occasion to present Myer Horowitz with the key to a log cabin recently acquired by the Garden Club as a much needed and larger replacement for its gift shop, where funds are raised for the Garden through the sale of dried flowers and other items. The shop has raised \$40,000 annually for the last three years. Members were entertained afterwards to an elegant tea of watercress sandwiches, French pastries and strawberries and cream.

International Development Links

Summer Institute for Petroleum Industry Development

The Alberta Summer Institute for Petroleum Industry Development started on 3 June. Thirty-six individuals from 17 countries will be on campus until 26 July. Participants include representatives from Austria, Bangladesh, Barbados, Brazil, China, Ghana, India, Kenya, South Korea, Malaysia, Pakistan, Peru, Philippines, Tanzania, Thailand, Venezuela and Yemen. Those interested in meeting or hosting participants are encouraged to do so. Contact: The International Briefing Centre, 432-2958.

CBIE Meeting

The annual meeting of the Canadian Bureau for International Education (CBIE) will be held in Ottawa, 16 to 19 November. Topic: International Development and International Education. For further information, contact: Wilf Allan, 432-2692.

WUSC Seeks Hosts

World University Service of Canada (WUSC) is seeking families to host individuals coming to Canada from abroad. Contact: Susan Belcher El-Nahas.

service information

Coming Events

Lectures and Seminars

Computing Science

27 June, 2 p.m. Martin Dubetz, "An Efficient Object/Volume Hierarchy for Raytracing." 619 General Services Building.

Biochemistry

28 June, 10 a.m. Guy Hervé, Directeur de recherche au CNRS Institute of Enzymology, France, "Molecular Mechanisms of Homotropic and Heterotropic Interactions in Allosteric Aspartate Transcarbamylase." 4-70 Medical Sciences Building. Sponsored by the Alberta Heritage Foundation for Medical Research.

Medicine

28 June, noon. David Osoba, Ontario Cancer Foundation, Toronto-Bayview Clinic, "Predicting Psychosocial Distress in Cancer Patients." Auditorium, Cross Cancer Institute. Sponsor: Oncology Research Seminar.

Ring House Gallery

2 July, 7:30 p.m. W.A. Fuller will give a slide lecture presentation on Wood Buffalo Park. W-2 H.M. Tory Building. The lecture has been scheduled in conjunction with the exhibition "Buffalo: 'these Beast on ye Barren ground.'"

Soil Science

5 July, 10 a.m. to 3 p.m. Breton Plots Field Day. For information, call the Department of Soil Science, 432-3242. Sponsored by Alberta Agriculture and the University of Alberta.

Exhibitions

Ring House Gallery

Until 6 October. "Buffalo: 'these Beast on ye Barren ground.'" Presented with the assistance of the University/Community Special Projects Fund and the Museum Assistance Programmes of the National Museums of Canada. To book tours of the exhibition, telephone 432-5834.

Bruce Peel Special Collections Library

Until 30 August. W.J. Phillips: English technique, Canadian mastery. Eighteen woodcuts in black and white and watercolors from books and portfolios. B-7 Rutherford South.

Theatre

SUB Theatre

Until 29 June, 8 p.m. "Brigadoon," presented by the Ensemble for Lyrical Operetta Productions. Tickets available at all BASS outlets.

Sports

Tennis

2 July, 8 a.m. Provincial Junior Tennis Championships. Competition will continue throughout the week with the finals in each event scheduled for Friday, 5 July. University of Alberta Tennis Centre, 51 Avenue and 121 Street.

Notices

Informal Reception for Lorne Leitch

Lorne Leitch, Vice-President (Finance and Administration), is stepping down from that position on 30 June to prepare for his return to the Faculty of Business. An informal reception to honor Mr. Leitch and his wife, Kathie, will be held Friday, 12 July, from 3:30 to 6 p.m. at University House.

All members of staff and friends and acquaintances of Mr. and Mrs. Leitch are invited to attend the reception.

Persons wishing to make donations toward a farewell gift for the couple are invited to send cheques payable to the "Lorne Leitch Farewell Fund," care of Mrs. June Butt, 3-12 University Hall, prior to 5 July.

Positions Vacant

The University of Alberta is an equal opportunity employer but, in accordance with Canadian Immigration requirements, these advertisements are directed to Canadian citizens and permanent residents.

Cataloguer, Boreal Institute for Northern Studies

The Library of the Boreal Institute for Northern Studies requires a Cataloguer to classify (using UDC), process and enter the data on a computer for the backlog of library acquisitions. This is a 12- to 15-month term position to commence on 1 August 1985. Salary \$20,000 to \$25,000 per annum. The applicant must have a degree in Library Science and preferably with experience in the Dewey Decimal or Universal Decimal Classifications. Good typing skills an asset.

Send résumé and names of two references to: Mrs. G.A. Cooke, Head Librarian, Boreal Institute for Northern Studies, CW 401 Biological Sciences Building, University of Alberta, Edmonton, Alberta T6G 2E9.

Lakehead University

Lakehead University is currently undergoing a reorganization at the senior management level and invites applications and nominations for the following positions.

Vice-President (Academic)

The incumbent is responsible to the President for the planning, management and administration of the academic affairs of the University.

The University has programs in Arts and Science and professional programs in Business Administration, Education, Engineering, Forestry, Library Technology, Nursing, Physical Education/Outdoor Recreation and Social Work. Approximately 5,000 students are currently enrolled in full- and part-time undergraduate programs.

The appointment will be for a 5-year term with

an option of renewal, and will commence 1 September 1985 or at a mutually agreeable date. It is expected that the incumbent will be appointed to a senior academic rank.

The successful candidate will possess appropriate senior management and strategic planning experience in an academic environment.

Director of Student Services

The Director of Student Services reports to the Vice-President (Academic) and is responsible for the coordination and provision of counselling services to members of the student body and advising students generally in matters relating to faculty, administration, governmental authorities, and the public. In addition, the incumbent is responsible for student housing, student health services and financial assistance programs. The Director will work closely with representatives of the student government and others to promote a supportive environment for student life.

The successful candidate will possess good interpersonal skills and the ability to communicate effectively. Student counselling experience, preferably at the University level, is a necessity, as is a proven record of administrative competence.

Applications should be accompanied by a detailed curriculum vitae and the names of at least three referees. Letters of nomination should include biographical details of the person nominated. Applications and nominations should be received by the Search Committee by 15 July 1985. Address replies to: Dr. Robert G. Rosehart, President, Lakehead University, Thunder Bay, Ontario P7B 5E1.

Further details on the above positions can be obtained by calling 807-344-4931.

In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian citizens and permanent residents.

Non-Academic Positions

To obtain further information on the following positions, please contact Personnel Services and Staff Relations, 2-40 Assiniboia Hall, telephone 432-5201. Due to publication lead time and the fact that positions are filled on an on-going basis, these vacancies cannot be guaranteed beyond 21 June 1985. For a more up-to-date listing, please consult the weekly Employment Opportunities Bulletin and/or the postings in PSSR.

The University of Alberta is committed to the principle of equal opportunity employment.

Positions available as of 21 June 1985.

Clerk Typist II (\$1,190-\$1,478) Graduate Studies and Research
Senior Clerk (\$1,190-\$1,478) Comptroller's Office
Senior Financial Records Clerk (\$1,326-\$1,666) Comptroller's Office
Clerk Typist III (\$1,326-\$1,666) Housing and Food Services
Clerk Steno III (\$1,326-\$1,666) Animal Science
Clerk Steno III (\$1,326-\$1,666) Extension
Clerk Steno III (Trust) (\$1,326-\$1,666) R.S.
McLaughlin Examination and Research Centre
Student Records Processing Clerk I (\$1,326-\$1,666) Arts
Medical Stenographer (\$1,478-\$1,888) Medicine
Secretary (Trust) (\$1,478-\$1,888) Applied Sciences in Medicine
Secretary (\$1,478-\$1,888) Business
Secretary (Part-time) (\$1,035-\$1,322) Electrical Engineering
Secretary (\$1,478-\$1,888) Pathology
Secretary (\$1,478-\$1,888) Plant Science
Systems Control Clerk II (Term) (\$1,478-\$1,888) Provincial Laboratory

Student Records Processing Clerk II (\$1,478-\$1,888) Rehabilitation Medicine
Departmental/Executive Secretary (\$1,666-\$2,144) Pharmacy
Departmental/Executive Secretary (\$1,666-\$2,144) Nursing
Storeman I (\$1,235-\$1,534) Bookstore
Building Services Worker II (\$1,326-\$1,666) Housing and Food Services
Animal Assistant II/Animal Technician I (Term/Trust) (\$1,326-\$1,968) MSB Animal Centre
Equipment Assistant I (\$1,371-\$1,739) Physical Education and Recreation
Technician I (\$1,534-\$1,968) Computing Services
Technician (Bacteriology) (Trust) (\$1,534-\$1,968) Stomatology
Animal Technician I/III (Trust) (\$1,534-\$2,458) Paediatrics
Technician II/Technologist I (Trust) (\$1,739-\$2,437) Pathology
Technician II/Technologist I (Trust) (\$1,739-\$2,437) Medical Microbiology
Biochemistry Technician II/Biochemistry Technologist I (Trust) (\$1,739-\$2,437) Biochemistry
Technician II/Technologist IV (Trust) (\$1,739-\$3,320) Paediatrics
Technologist I (Part-time) (\$944-\$1,219) Anthropology
Technologist I (Part-time Recurring Term) (\$944-\$1,219) Anthropology
Audio Visual Technician II/III (\$1,810-\$2,661) Instructional Technology Centre
Biology Technologist I (Trust) (\$1,888-\$2,437) Genetics
Technologist I (Trust) (\$1,888-\$2,437) Cardiology
Programmer Analyst I/II (Term) (\$1,888-\$2,905) Office of Administrative Systems
Biochemistry Technologist II (Trust) (\$2,053-\$2,661) Genetics
Technologist II/IV (Trust) (\$2,053-\$3,320) Paediatrics
Pharmacist (Part-time) (\$821-\$1,064) University Health Service
Technologist III (\$2,237-\$2,905) Computing Science
Programmer Analyst II (\$2,237-\$2,905) Zoology
Programmer Analyst III (\$2,661-\$3,475) Computing Science

For vacant Library positions, please contact the Library Personnel Office, Basement, Cameron Library. Telephone 432-3339.

Advertisements

Advertisements must reach the Editor by 3 p.m. on the Thursday prior to publication date which date also serves as the deadline for cancellation of advertisements. The cost of placing advertisements is 30 cents per word with no discount for subsequent insertions. There is a maximum limit of 30 words and a minimum charge of \$1.50. Contributors' corrections will be assessed at \$1.50 for each line in which an insertion is made. Advertisements cannot be accepted over the telephone. All advertisements must be paid for in full at the time of their submission.

Accommodations available

Rent - Two-bedroom, California bungalow, furnished, one block from campus. Ground floor only. Reasonable rent. Available 1 September 1985. Phone 434-2911.
Rent - 11240 77 Ave. Three-bedroom house. \$775/month. Available 21 June. Married couple. No pets. 436-7248.
Sale - By owner. Three-bedroom bungalow. Two years old, close to Heritage Mall (1,000'). Fully landscaped. Call 434-1663 or 438-4289.

Sale - Parkallen sacrifice. Spacious, 1,300 sq. ft., family home in quiet cul de sac, walk to University. \$74,900. Ask for Joyce Byrne, 435-6064, 436-5250. Spencer's.

For rent - \$690/month, unfurnished, three-bedroom house, garage. McKernan area, walking distance to University. Starting 1 July 1985. Phone 438-0183.

Sale - By owners, two-storey, four-bedroom house. Garneau. Extensive renovations. \$99,500. No realtors. Evenings 431-0208.

Rent - Large acreage home, Rabbit Hill area, not in subdivision. Twenty minutes from U of A. Available August. Ideal for skiers. Asking \$1,000/month plus utilities. Phone 955-8019.

Rent - Unfurnished house, \$600, near University, 11123 75 Ave. Two bedrooms up, finished basement. 1 August. 437-5065.

For rent - Clean, spacious, unfurnished bungalow. July and August only. Four appliances. 87 St. 120 Ave. \$550 monthly. 475-3479 or 477-7904.

For sale - Parkallen bargain, 1,675 sq. ft., semi-bungalow, features hardwood floors, library, four bedrooms. Just \$77,500. Call Ken Smith, 462-5000. Re/Max Real Estate.

For sale - Lakefront lots, \$5,000. Majeau Lake, one hour from Edmonton. Call Ken Smith, 462-5000, Re/Max Real Estate.

For sale - Aspen Gardens. Open beam bungalow, custom-built, large mortgage can be assumed. Call Ken Smith, 462-5000, Re/Max Real Estate.

Rent or purchase - House, three bedrooms, with

basement suite. Available mid-August, quiet location. \$84,000 or \$800/month. Phone 469-9552.

Rent - Belgravia. Two-bedroom plus two, bungalow. Two bathrooms, fireplace. Close to excellent schools. Academic staff preferred. Asking \$700/month. 434-6236.

Rent - Strathearn, three bedrooms, rumpus room, double garage, four appliances. \$600. 488-2387.
Caretaker/tenant required for well-kept, two-bedroom, 106 St. 68 Ave. Treed yard. Four appliances. Furnished, low rent for right person. 439-1812.

Rent - One-bedroom condo apartment with loft, fireplace, underground parking. 11115 80 Ave. Hampton Village. Available 30 August. Call 432-0901.

Rent - Aspen Gardens. Spacious, split level. Four bedrooms, family room, fireplace, furnished or unfurnished, double garage. 1 August possession. 438-1044.

Rent - University Avenue 10839. Beautifully furnished, one-bedroom apartment. \$400. #16 Caretaker. 488-9151, 433-6024.

Sale - Mill Creek. 1,500 sq. ft., two-storey. Extensive renovations. Three bedrooms, double garage. 439-2570.

Sale - Belgravia. Desirable, quiet location. Close to Saskatchewan Drive. Bungalow. W/B fireplace. Large, very private yard. Chris Tenove, 433-5664, 436-5250. Spencer's.

Sale - Residential lots. \$49,000-\$79,500. At least one acre. Some ravine. Chris Tenove, 433-5664, 436-5250. Spencer's.

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